BUREAU OF HIGHWAYS
REQUEST FOR PROPOSAL
for
QUALIFICATIONS BASED SELECTION FOR PREQUALIFIED SERVICES

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is currently prequalified for this type of work and you are interested in providing services, please indicate your interest by submitting a Proposal. The Proposal must be submitted in accordance with the latest "Vendor Selection Guidelines for Service Contracts", available on the MDOT website.

For efficiency sake, we are asking that the vendor firm provide [4] paper copies of the Proposal to the MDOT project manager named in the attached scope of services.

These copies must be received by [March 7, 2005]**.** Fax and electronic copies are not acceptable.

In addition, provide one unbound copy to:

Regular Mail:
Secretary, Operations Contract Support
Michigan Department of Transportation
P.O. Box 30050
Lansing, MI 48909

OR

Overnight Mail:
Secretary, Operations Contract Support
Michigan Department of Transportation
425 W. Ottawa
Lansing, MI 48933

This copy is to be received within three working days after the due date and time specified above. Please do not deliver in person.

Any questions relative to the scope of services must be submitted by e-mail to the MDOT project manager. Any questions must be asked at least three working days prior to the due date and time specified above. All questions and their answers will be placed on the MDOT website as soon as possible after receipt of the questions. The names of vendors submitting questions will not be disclosed.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

The selection team will review the information submitted and will select the firm considered most qualified to perform the engineering services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

The maximum allowable pages for your proposal shall follow the guidelines detailed in Exhibit [F] of the Vendor Selection Guidelines (October 2004) for [greater than $500,000].

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

The scope of services is attached to this solicitation.

SCOPE OF DESIGN SERVICES
CS 82131 - JN 76903C
M-1 (Woodard Ave.) from the I-94 to Adams Road

PROJECT LOCATION: M-1 (Woodard Avenue) from Adams Road to I-94 in City of Detroit, Wayne County.
CONTROL SECTION, JOB NUMBER: 82131, 76903
DESCRIPTION OF WORK: HMA Mill and Resurfacing of M-1

I Primary Prequalification Classification:
Roadway Rehabilitation & Rural Freeways

II Secondary Prequalification Classification:
Maintaining Traffic Plans & Provision
Pavement Marking Plans
Traffic Signal Design
Road Design Survey
Hydraulic Survey

MDOT Project Manager

Christopher E. Burnell
Metro Region Office
18101 West Nine Mile Road
Southfield, MI 48075
Phone: (248) 483-5119
E-mail: burnellc@michigan.gov

The anticipated start date of the service is [6/7/2005].
The anticipated completion date for the service is 12/01/2007

DBE Requirement: 10%.

I. SCOPE OF CONSULTANT DUTIES

Complete the design of this project including, but not limited to the following:

A. Perform a storm sewer inspection. (See Attachment B)

B. Prepare crash analysis report

C. Prepare required plans, typical cross-sections, details, and specifications required for design and construction.

D. Compute and verify all plan quantities.

E. Prepare staging plans and special provisions for maintaining traffic during construction.

F. Prepare pavement marking plans and special provisions.

G. Prepare traffic signal plans and special provisions.

H. Prepare permanent signing plans and special provisions for non-freeway sign upgrading.

I. Provide solutions to any unique problems that may arise during the design of this project.

The design survey (also see survey work plan for P/PMS Task 3330) will consist of obtaining control that will be sufficient for 3d mapping as required by MDOT's survey and photogrammetry standards. Underground utilities will also be required to be shown on the plans.

J. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

II. PROJECT LOCATION

The project is located on M-1 (Woodward Avenue), from the I-94 to Adams in the City of Detroit in Wayne County. The project length is 2.069 miles.

III. PROJECT DESCRIPTION

This project consists of all work related to designing this M-1 project, including but not limited to the following:

A. Resurfacing (3.5" bituminous minimum and crown modification)
B. Full depth concrete pavement joint repairs (Detail 7, where required)
C. Replacing curb and gutter and sidewalk
D. Full depth pavement repairs

E. Sign upgrade

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

IV. PROJECT CONSTRUCTION COST

A. The estimated cost of construction is:

1.	Base, Surface and Shoulder	$2,627,113
2.	Non-Motorized	$ 58,876
3.	Safety Work	$ 7,976
4.	Drainage Adjustment and Improvement	$1,169,336
5.	Joint Repair and Pavement Patching	$ 808,628
6.	Detours and Maintaining Traffic	$1,797,064
7.	Permanent Pavement Markings/Signs	$ 156,973
8.	Miscellaneous	$ 584,384
9.	Environmental	$ 7,778
	CONSTRUCTION TOTAL	**$7,218,126**

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

If at any time the estimated cost of construction varies by more than 5% of the current programmed amount, then the Consultant will be required to submit a letter justifying the changes in the construction cost estimate.

V. PROJECT SCHEDULE

The scheduled Consultants plan completion date for this project is **June 1, 2007.** The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

Target Date	Task #	Description
	3330	Conduct Design Survey
	3360	Prepare Base Plans
	3380	Review Base Plans
	3390	Develop the Construction Zone Traffic Control Concepts

	3540	Develop Construction Zone Traffic Control Plan
	3551	Develop Preliminary Traffic Signal Plan
	3552	Develop Preliminary Permanent Pavement Marking Plan
	3553	Develop Preliminary Non-Freeway Signing Plan
	3580	Develop Preliminary Plans
01/10/07	3590	Review Preliminary Plans (The Plan Review)
	3610	Compile Utility Information
	3660	Resolve Utility Issues
	3821	Complete Traffic Signal Plan
	3822	Complete Permanent Pavement Marking Plan
	3823	Complete Non-Freeway Signing Plan
	3830	Complete the Construction Zone Traffic Control Plan
	3840	Develop Final Plans and Specifications
	3870	Hold Omissions/Errors Check (OEC) Meeting
05/05/07		Omissions/Errors Check (OEC) Meeting (approximate date)
06/01/07		Consultant's Plan Completion: Final Construction Plan/Proposal package with recommendations incorporated to MDOT (two weeks after OEC Meeting)
09/01/07		Final Deliverables to MDOT

VI. PAYMENT SCHEDULE

Compensation for this Scope of Design Services shall be on an actual cost plus fixed fee basis.

VII. MONTHLY PROGRESS REPORT

On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the **Christopher Burnell,** Project Manager. The monthly progress report shall follow the guidelines in attachment C.

VIII. FORMAT

Full size plans (cut size 24" x 36") and half size (cut size 11" x 17") consisting of plan sheets and profile sheets will be required. The project will require a ratio (scale) of 1:50.

Other plan sheets that are required for this project shall be completed by the Consultant. These include, but are not limited to the following plan sheets:

A. The title sheet. MDOT will provide a map of the area on a disk in our workstation format. If the map is not available, MDOT will provide a map that could be used. The Consultant shall be responsible for any revisions to the title sheet and the title sheet and map shall meet MDOT format and layout guidelines.

B. Note Sheet.

C. Typical Cross-Sections.

D. Project specific Special Details.

E. Construction staging and traffic control plans.

F. Detail grade sheets for major intersections, ramp gores and critical areas.

G. Paving details.

H. Pavement marking plan(s).

I. Culvert detail sheet(s).

J. Vicinity and drainage map sheet.

K. Alignment sheet.

L. Witness and benchmark sheet(s).

M. Soil boring log sheet(s).

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager.

All plans, specifications, and other project related items are subject to review and approval by MDOT.

IX. UTILITIES

The Consultant shall be responsible for obtaining and showing on the plans the location and names of all existing utilities within the limits of the project. In the course of resolving utility conflicts, the Consultant shall make modifications to the plans or design details and provide assistance as directed by the MDOT Utility Permits Engineer and/or Project Manager. The Consultant shall attend any utility meetings called to ensure that the concerns are addressed on the plans involving utilities. The Consultant shall assist in the review of utility permit requests to ensure compatibility with the project.

X. TRAFFIC CONTROL AND MDOT PERMITS

The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Project Scope of Design Services.

The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through Kathy Fulton, Utilities/Permits Section, Real Estate Division at (517) 373-7680

XI. PRE-QUALIFICATION AND SUBCONTRACTING OF CONTRACT WORK

Any task(s) for which the Consultant is not prequalified must be completed by a Subcontractor that is pre-qualified for that task(s). Any questions regarding prequalification should be directed to Phil Brooks, Prequalification Manager, at (517)335-2514.

The Department's prequalification is not a guarantee or warranty of the subcontractor's ability to perform or complete the work subcontracted. The Consultant remains fully responsible to the Department for completion of the work according to the authorization as if no portion of it had been subcontracted.

All subcontractor communications with the Department shall be through the Consultant to the MDOT Project Manager. This requirement may be waived if a written communication plan is approved by the MDOT Project Manager.

The Department may direct the immediate removal of any subcontractor working in violation of this subsection. Any costs or damages incurred are assumed by the Consultant by acceptance of the authorization. It is further understood that the Consultant's responsibilities in the performance of the contract, in case of an approved subcontract, are the same as if the Consultant had handled the work with the Consultant's own organization.

XII. CONSULTANT RESPONSIBILITIES (GENERAL)

A. Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, ROW submittal dates, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

B. Maintain a Design Project Record which includes a history of significant events (changes, comments, etc.) which influenced the development of the plans, dates of submittals and receipt of information.

C. **P/PMS TASK 3360 - PREPARE BASE PLANS**
See Consultant Manual Attachment D for details.

D. **P/PMS TASK 3380 - REVIEW BASE PLANS**
See Consultant Manual Attachment D for details.

E. **P/PMS TASK 3390 - DEVELOP THE CONSTRUCTION ZONE TRAFFIC CONTROL CONCEPTS**
See Consultant Manual Attachment D for details.

F. Perform storm sewer design calculations, including appropriate outlets and energy dissipation if necessary, as outlined in Chapter 4 of the MDOT Road Design Manual. Detention may be required. Detention pond design must meet, but is not limited to, local agency storm water regulations and Michigan Department of Environmental Quality water quality permit requirements. Submit all design calculations, drainage maps, and proposed profiles to the MDOT Project Manager for review prior to the Plan Review.

G. The consultant shall identify the locations of any water main and/or sanitary sewer on the project.

H. If watermains and/or sanitary sewers are present within the project limits, the CONSULTANT shall evaluate the necessity for the relocation of water mains and sanitary sewers, in accordance with Design Division's Informational Memorandum #441B and #402R dated April 13, 1992. The CONSULTANT shall submit a report to Steven J. Urda, Design Engineer - Municipal Utilities, Design Division for review and concurrence. A copy of the report shall be sent to the Project Manager. **If relocation is necessary and watermain and/or sanitary sewer work is not part of the Scope Of Work, contact the MDOT Project Manager immediately.**

I. **P/PMS TASK 3540 - DEVELOP CONSTRUCTION ZONE TRAFFIC CONTROL PLAN**
See Consultant Manual Attachment D for details.

J. **P/PMS TASK 3551 – DEVELOP PRELIMINARY SIGNAL PLANS**
See Consultant Manual Attachment D for details.

K. **P/PMS TASK 3552 - DEVELOP PRELIMINARY PERMANENT PAVEMENT MARKING PLAN**
See Consultant Manual Attachment D for details.

L. **P/PMS TASK 3553 - DEVELOP PRELIMINARY NON - FREEWAY SIGNING PLAN**
See Consultant Manual Attachment D for details.

M. **P/PMS TASK 3610 – COMPILE UTILTIY INFORMATION**
See Consultant Manual Attachment D for details

N. **P/PMS TASK 3660 – RESOLVE UTILITY ISSUES**
See Consultant Manual Attachment D for details

O. **P/PMS TASK 3580 - DEVELOP PRELIMINARY PLANS**
See Consultant Manual Attachment D for details.

P. **P/PMS TASK 3590 - REVIEW PRELIMINARY PLANS (THE PLAN REVIEW)**
See Consultant Manual Attachment D for details.

Q. **P/PMS TASK 3821 – COMPLETE PREMANENT SIGNAL PLAN**
See Consultant Manual Attachment D for details

R **P/PMS TASK 3822 - COMPLETE PERMANENT PAVEMENT MARKING PLAN**
See Consultant Manual Attachment D for details.

S. **P/PMS TASK 3823 - COMPLETE NON-FREEWAY SIGNING PLAN**
See Consultant Manual Attachment D for details.

T. **P/PMS TASK 3824 - COMPLETE FREEWAY SIGNING PLAN**
See Consultant Manual Attachment D for details.

U. **P/PMS TASK 3830 - COMPLETE THE CONSTRUCTION ZONE TRAFFIC CONTROL PLAN**
See Consultant Manual Attachment D for details.

V. **P/PMS TASK 3840 - DEVELOP FINAL PLANS AND SPECIFICATIONS**
See Consultant Manual Attachment D for details.

W. **P/PMS TASK 3870 - HOLD OMISSIONS/ERRORS CHECK (OEC) MEETING**
See Consultant Manual Attachment D for details.
The interval for plotting cross-sections and developing the grade book shall be D meters. The intervals for critical areas shall be D meters.

X. **P/PMS TASK 5010 - CONSTRUCTION PHASE ENGINEERING AND ASSISTANCE**
The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

Y. If excavation is required, submit the excavation locations which may contain contamination. Project Manager then can proceed in requesting a Preliminary Project Assessment (PPA).

Z. The Consultant shall be required to prepare and submit a CPM network for the construction of this project. See Attachment A for details

AA. The Consultant representative shall record and submit type-written minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for the Base Plan Review Meeting (if meeting necessary) and The Plan Review Meeting.

BB. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns and questions. May require the preparation of displays such as maps, marked-up plans, etc.

CC. Prepare and submit any information, calculations, hydraulic studies, or drawings required by MDOT for acquiring any permit (ie. NPDES, DEQ, etc), approvals (ie. county drain commission) and related mitigation. MDOT will submit permit requests.

DD. Attend any project-related meetings as directed by the MDOT Project Manager.

EE. The Consultant shall assist in the review of driveway and utility permit requests, incorporate the information in the design plans and respond within 2 weeks from receipt of the permit.

FF. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.

GG. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

XIII. MDOT RESPONSIBILITIES (GENERAL)

A. Schedule and/or conduct the following:

1. Project related meetings.
2. The Plan Review
3. Utility Meetings.

4. Quantity summary sheets and final item cost estimates.
5. Packaging of plans and proposal.

B. Furnish Special Details and pertinent reference materials.

C. Furnish prints of an example of a similar project and old plans of the area, if available.

D. Supply information on existing pavement structure as necessary.

E. Coordinate any necessary utility relocation.

F. Furnish pavement core information (Consultant shall place information on plan sheets).

G. Furnish soil boring information as necessary (Consultant shall place information on plan sheets).

H. Pavement design

XIV. VENDOR PAYMENT:

All invoices/bills for services must be directed to the Department and follow the 'then current' guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Vendor for Services rendered shall not exceed the "Cost Plus Fixed Fee Not to Exceed Maximum Amount" unless an increase is approved in accordance with the contract with the Vendor. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses will not be paid in excess of that allowed by the Department for its own employees. Supporting documentation must be submitted, with the invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the CE activities of this Project. Hours spent in administrative, clerical, or accounting roles for billing and support, are not considered allowable hours; there will be no reimbursement for these hours.

Reimbursement for overtime hours will be limited to time spent on this project in excess of forty hours per week. Any variations to this rule should be included in the price proposal

ATTACHMENT A
CS 82131 JN 76093
M-1(Woodard Ave.) From the Adams Road to I-94

CONSTRUCTION CRITICAL PATH NETWORKS

I. INTRODUCTION

The Consultant is required to submit a Construction Critical Path Network at various points in the design process. Refer to the following:

P/PMS TASK 3580 - DEVELOP PRELIMINARY PLANS

P/PMS TASK 3830 - COMPLETE THE CONSTRUCTION ZONE TRAFFIC CONTROL PLAN

P/PMS TASK 3840 - DEVELOP FINAL PLANS AND SPECIFICATIONS

Construction Critical Path Networks are often needed to develop the progress schedule for a project. They are required on any project designated to include an Incentive/Disincentive or Special Liquidated Damages clause. Construction Critical Path Networks are also recommended for projects with the following characteristics:

1. New construction.
2. Major reconstruction or rehabilitation on an existing roadway that will severely disrupt traffic.
3. Unique or experimental work.
4. More than one construction season.
5. Complex staging(multiple stages with traffic shifts).

As noted in MDOT's Construction and Technology Instructional Memorandum 1997-7, Progress Schedule Determinations/Critical Path Rates,

> "*preparation of a Critical Path is a requirement on <u>all</u> consultant-designed projects, regardless of the project type or complexity.*"

The MDOT Resident Engineer assigned to the project should be consulted when developing Construction Critical Path Networks.

MDOT requires the precedence diagraming method. The Consultant will submit this network in MPX version 4.0.

II. NETWORK DEVELOPMENT

The network will be defined using the following steps.

1. Activity definition.
2. Activity sequencing.
3. Duration estimation.
4. Schedule development.

1. ACTIVITY DEFINITION

The Consultant will define the specific activities in enough detail so that the proper objectives will be met. The Consultant must identify assumptions (those factors considered true, real or certain). Supporting detail for the activities should be documented and organized as needed to simplify the review of the activities by MDOT personnel.

The Construction Critical Path Network must start with the "Letting Date" as the first activity and terminate with the "End of Project" as the finish activity.

A sufficient number of activities will be required with sufficient detail so that the controlling construction operation(s) may be identified. Notation on each activity shall include a brief work description and activity time duration.

2. ACTIVITY SEQUENCING

Activity sequencing involves identifying and documenting interactivity dependencies. The Consultant must sequence activities accurately to support later development of a realistic and achievable construction schedule. Two types of dependencies should be considered. Mandatory dependencies are inherent in the nature of the work being done, such as construction sequencing. Discretionary dependencies are based on a knowledge of the work to be done. Constraints are used to show how the activities relate to each. The Consultant must include documentation supporting all discretionary dependencies used in the project. All activities must lead to another activity. Only Start to Start, Finish to Finish and Finish to Start relationships will be allowed. All logic shall show how the given activity is dependent on its preceding activities.

3. DURATION ESTIMATION

After the Consultant has sequenced the activities, the Consultant should determine the activity duration. Activity duration estimating involves assessing the number of work periods likely to be needed to accomplish each activity. Duration (working days): No activity will have a duration greater than 20 working days unless approved by the Engineer. Activities that will be allowed to exceed 20 working days include, but are not limited to, working drawing approvals or other activities not under the control of the

Contractor. If requested by the Engineer, the Consultant shall explain the reasonableness of activity time durations. The approved MDOT production rates will be used in estimating activity duration. These are available in the Supplemental Information section of this attachment. The Consultant must document and submit all assumptions made during the duration estimation to MDOT.

4. SCHEDULE DEVELOPMENT

The actity sequencing, duration estimations and the calendars are combined to create the construction schedule. During the development of the schedule the Consultant will verify:

1. The required schedule to build the project.
2. The constructability of the project.
3. If the maintaining traffic scheme will work.
4. If seasonal limitations will affect the construction.
5. Any other project specific considerations.

The MDOT Calendars will be used by the Consultant in developing the network. The calendars are based on a 4, 5 or 6 day work week. The MDOT Calendars are included in the Supplemental Information section of this attachment.

At this point there should be no negative float in the network. If there is, there is an error in the network and the error must be corrected before network submittal.

All summary tasks shall be removed prior to submittal to MDOT Project Manager

III. DELIVERABLES

After this final step the design consultant will submit the finished CPM schedule to MDOT

1. Documents

A. 11" x 17" plot of the network. The critical path shall be clearly identified on the plot. A larger plot may be required for complex networks.

B. Work Day / Completion Date Determination Worksheet.

C. List of any other assumptions or controlling factors used in creating the network. For example, permit or maintiang traffic restrictions.

2. Electronic Format

This section sets the requirements for the eletronic submittal of the Consultant's Construction Network. All networks shall be submitted on a 3.5 inch floppy disk (or via E-mail) using one of the following formats:

A. **Standard Electronic Media Format:** This is a standard ASCII text file containing the data elements below, in the order specified. This file can be created using any text editor or word processing application (i.e., MS-Word, WordPerfect, Notepad, Write) but must be saved as an ASCII file.

The **first line** will provide a descriptive header describing the submittal and containing:

Control Section
Job Number
Route
Consultant name
Date of Submital

The next line will be **blank**, followed by multiple data lines.

Each **data line** will contain one record pertaining to one task of the job. Separate data fields by a comma. Fields within each task line are as follows:

(Note that the term "task" is synonymous with "activity." Leave fields that are not required blank)

(1) Task # (Job # followed by a hyphen followed by this task's unique 4 digit task number. This is the Preceding Event Activity Code)
(2) Description of Task, Milestone or Hammock, blank if this record is a constraint
(3) Calendar (see attached list)
(4) Duration of task, blank for constraints
(5) Task # of the next task (Succeeding Event) - leave blank if this record is not a constraint or hammock
(6) Type of constraint (FS, SS, FF) - leave blank if this record is not a constraint.
(7) Delay, if required
(8) Original "Baseline" Start Date
(9) Original "Baseline" Finish Date
(10) Current (forecast) Start Date (early start)
(11) Current (forecast) Finish Date (early finish)
(12) Estimated completion date (if different from early start + current duration)
(13) Late Start Date
(14) Late Finish Date
(15) Actual Start Date

(16) Actual Finish Date

Example - each line contains the following:

Task # (preceding event), Description, Calendar, Duration, Next Task # (succeeding event), Constraint Type, Delay, Baseline Start, Baseline Finish, Early Start, Early Finish, Estimated Completion Date, Late Start, Late Finish, Actual Start, Actual Finish, Total Float.

B. **Primavera Project Planner(P3) 2.0 Export Procedure:** Users who have Primavera Project Planner(P3) version 2.0 can automatically create a export file by following the below export procedure below. **Users having an older version of Primavera may use the applications export feature only if they are able to include all the data elements listed in the version 2.0 format.**

1. Choose Tools, Project Utilities, **EXPORT**
2. Click **ADD**, Then click **OK** to accept the next sequential ID number, or type a unique number to identify the specifications and click **OK**
3. Enter a description for the specification in the Title field
4. Specify data items to export

Activities
- Select **Contents of List**
- Use the Description column to specify which data items to export
- To add items, click the right mouse button in the Description column and choose from the list. Suggested Items include: **Activity ID, Activity Description, Actual Start, Actual Finish, Calendar ID, Early Start, Early Finish, Late Start, Late Finish, Original Duration.**
- Select **All Current, All Target**, or **All Target2**
- Set Description Length to 48

OR

Constraints
- Select **Successor relationships** - Choose this option to export Activity IDs and their corresponding successors only. Lags and relationship types will also be displayed in this output file.

5. Click **FORMAT** in Export Dialog Box
6. In the Output file section, enter a new name and path (ex. A:\actexp or A:\conexp). Do not include a file extension.
7. In the type field, click the minimize button and choose the **[.PRN] - ASCII** file format for the output file.
8. Select **CALENDAR** for Date Format

9. Set ASCII Output Field Separation to **1** and Blank column width to **0**
10. Click **RUN**
11. In the Output Options dialog box, click on **OK**

NOTE: A COMPLETED FILE EXPORT WILL CONSIST OF 2 EXPORT FILES (ACTIVITIES & CONSTRAINTS)

C. **Microsoft Project Export Procedure:** Users of Microsoft Project Version 4.0 and above can create a Microsoft Project Exchange (MPX) file by following the procedure below.

1. Choose File, Save As from the main menu
2. In the Save File as Type box Select **MPX 4.0**
3. On the drive box select a: or whichever drive is the 3.5" Floppy drive
4. Click on **OK**
This saves the file in MPX format.

D. **Primavera Sure Track:** Users of Sure Track Version 2.0 and above can create a Microsoft Project Exchange (MPX) file by following the procedure below.

1. Choose File, Save As from the main menu
2. In the filename box input a filename
3. In the Save File as Type box Select **MPX**
4. On the drive box select a: or whichever drive is the 3.5" Floppy drive
5. Click on **OK**
This saves the file in MPX format

E. **Scitor Project Scheduler 7 Export Procedure:** Users of Scitor Project Scheduler Version 7 and above can create a Microsoft Project Exchange (MPX) file by following the procedure below.

1. Choose File, Save As from the main menu
2. In filename box select a filename
3. In the Save File as Type box Select MPX
4. On the drive box select a: or whichever drive is the 3.5" Floppy drive
5. Click on **OK**
This saves the file in MPX format

F. **Export Files with Other Scheduling Applications:** Most scheduling packages have export functions similar to those described above. If the Consultant chooses to use packages with export capabilities, they shall include all items listed in the Standard Media Format in a text or ASCII type file.

IV. SUPPLEMENTAL INFORMATION

A. MDOT CRITICAL PATH-CONSTRUCTION TIME ESTIMATES

Drainage

Cross Culverts	
Rural Highways	40 m/day
Expressways	50 m/day
Large Headwalls	5 days/unit
Slab or Box Culverts	5 days/pour
Plowed in Edge Drain(production type project)	4500 m/day
Open Graded Underdrain(production type project)	1200 m/day
Sewers	
0m-5m(up to 1500mm)	40 m/day
0m-5m(over 1500mm)	25 m/day
5m-over(up to 1500mm)	25 m/day
5m-over(over 1500mm)	20 m/day
Jacked-in-place	13 m/day
including excavation pit & set up	min. 5 days
Tunnels	
hand mining	8 m/day
machine mining	20 m/day
including excavation pit & set up	min. 5 days
Manholes	3 units/day
Catch Basin	4 units/day

Utilities

Water Main(up to 400mm)	100 m/day
Flushing, Testing & Chlorination	4 days
Water Main(500mm-1050mm)	25 m/day
Flushing, Testing & Chlorination	5 days
Order & Deliver 600 mm HP Water Main	50 days/order
Gas Lines	100 m/day

Earthwork and Grading	**Metro Exp**	**Rural**
Embankment(CIP)	1500 m3/day	5300 m3/day
Excavation and/or Embankment(Freeway)	1500 m3/day	9200 m3/day
Excavation and/or Embankment(Reconstruction)	750 m3/day	3800 m3/day
Embankment(Lightweight Fill)	300 m3/day	600 m3/day
Muck(Excavated Waste & Backfill)		1500 m3/day
Excavation(Widening)		600 m/day
Grading(G & DS)		750m/day
Subbase and Selected Subbase(up to 7.4m)		600 m/day
Subbase and Selected Subbase(7.4 m & over)		450 m/day

Subgrade Undercut & Backfill	1500 m3/day
Subbase & Open-Graded Drainage Course	450 m/day
Surfacing	
Concrete Pavement(7.3m)	450 m/day
Including Forming & Curing	min. 7 days
Bituminous Pavement(7.3m)	1200 m/day/course
Concrete Ramps(4.9m)	300 m/day
Including Forming & Curing	min. 7 days
Curb(1 side)	750 m/day
Concrete Shoulder-Median	1200 m2/day
Bituminous Shoulders(1 side per course)	750 m/day
Sidewalk	180 m2/day
Sidewalk(Patching)	65 m2/day
Structures	
Sheeting(Shallow)	30 m/day
General Excavation at Bridge Site	750 m3/day
Excavation for Substructure(Footings)	1 unit/day
Piles(12m)	15 piles/day
Substructure(Piers & Abutments)	5 days/unit
Order and Delivery of Beams	
Plate Girders	100-120 days/order
Rolled Beams	90-120 days/order
Concrete Beams	50 days/order
Erection of Structural Steel	3 days/span
Bridge Decks	
Form & Place Reinforcement(60m Structure)	15 days
Pour Deck Slab(1 1/5 days/pour)	2 days/span
Cure	14 days
2 Course Bridge Decks	
Add 9 days for Second Course Latex	
Add 12 days for Second Course Low Slump	
Sidewalks and Railings	
Sidewalks and Parapets	5 days/span
Slip Formed Barriers	2 days/span
Clean Up	10 days
Pedestrian Fencing	
Shop Plan Approval & Fabrication	1-2 months
Erection	1 week/bridge
Rip Rap Placement	
Bucket Dumped	385 m^3/day
Bucket Dumped and Hand Finished	131-523 m^3/day

Retaining Walls	1 Panel/day min. 10 days
Railroad Structures	
Grade Temporary Runaround	750 m3/day
Ballast, Ties & Track	50 m/day
Place Deck Plates	5 days/span
Waterproof, Shotcrete & Mastic	5 days/span
Railroad Crossing Reconstruction	10-15 work days (depends on if concrete base is involved)
Temporary Railroad Structures	
Order & Deliver Steel	55 days/order
Erect Steel	1 day/span
Ties and Track	3 days/span
Pumphouse	
Structure	30 days/m
Order & Deliver Electrical & Mechanical Equipment	90 days
Install Electrical & Mechanical Equipment	30 days
Miscellaneous	
Removing Old Pavement	60 m/day
Removing Old Pavement for Recycling(7.3m)	450 m/day
Crushing Old Concrete for 6A or OGDC	1350 mtons/day
Removing Trees(Urban)	15 units/day
Removing Trees(Rural)	30 units/day
Removing Concrete Pavement	450 m2/day
Removing Sidewalk	250 m2/day
Removing Curb & Gutter	450 m/day
Removing Bitumin.ous Surface	1600 m2/day
Conditioning Aggregate	900 m/day
Bitumin.ous Base Stablizing	2500 m2/day
Ditching	600 m/day
Trenching for Shoulders	750 m/day
Station Grading	610 m/day
Clearing	8000 m2/day
Restoration(Topsoil, Seeding, Fertilizer & Mulch)	1650 m2/day

Sodding	2100 m2/day
Seeding	40000 m2/day
Guard Rail	230 m/day
Fence(Woven Wire)	360 m/day
Fence(Chain Link)	150 m/day
Clean Up	600 m/day
Concrete Median Barrier	300 m/day
Cure	min. 7 days
Reroute Traffic(Add 4 days if 1st item)	1 day/move
Concrete Glare Screen	450 m/day
Light Foundations	6 units/day
Order & Delivery	6-8 week/order
Remove Railing & Replace with Barrier(1 or 2 decks at a time)	4 days/side
Longitudinal Joint Repair	1600 m/day
Crack Sealing	4800 m/day
Joint and Crack Sealing	500 m/day
Repairing Pavement Joints - Detail 7 or 8	200 m/day
Seal Coat	6400 lane m/day
Diamond Grinding/Profile Texturing Concrete	3300 m2/day
Rest Area Building	
Order Material	3 months
Construct Building	9 months
Tower Lights	
Order and Deliver Towers	100 days
Weigh-In-Motion	
Order and Deliver Materials	1 month-6weeks
O & D with Installation	3 months
Raised Pavment Markers	300 each/day
Attenuators	2 each/day
Shoulder Corrugations, Ground or Cut	8 km-9.7 km/side/day
Aggregate Base	2900 m^2/day
Aggregate Shoulders	350 m^3/day
Freeway Signing - 3# Post Type	50 signs/day
Concrete Joint Repair(High Production-Projects with > 1000 patches)	
Average(1.8m)	50 patches/day
Large(>1.8m)	500 m2/day
Bridge Painting	90 m2/day
Pin and Hanger Replacement	3 beams/day
Order Pin & Hanger	60 days

Bridge Repair

Scarifying(Including Clean up)	10000 m2/day
Joint Removal(Including Clean up)	4 m/day
Formin.g & Placement	3.5 m/day
Hydro-Demolishing	300 m/day
Barrier Removal	15 m/day
Placement	45 m/day
Hand Chipping (Other than Deck)	.24 m^3/person/day
Shoulder Corrugations, Ground or Cut	8 km-9.7 km/side/day
Casting Latex Overlay	250 m/day
Curing Overlay	
Regular	4 days
High Early	1 day
Thrie Beam Retrofit	30 m/day
Beam End Repairs	
Welded Repairs	.75 days/repair
Bolted Repairs	.50 days/repair
Bolted Stiffeners (Pair)	.25 days/repair
Grind Beam Ends	.25 days/repair
Welded Stiffeners (Pair)	.25 days/repairH-
Pedestal Repairs:	
Welded Repair	.50 days/each
Replacement	1 day/each
Deck Removal	235 m^2/day

Surfacing-Bituminous

Metro-Primary(<18000mtons)	
Paving	540 mtons/day
Joints	150 m/day
Cold Milling	3400 m2/day
Aggregate Shoulders	900 mtons/day
Metro Primary(>18000mtons)	
Paving	540 mtons/day
Joints	200 m/day
Cold Milling	7500 m2/day
Metro Interstate(>18000mtons)	
Paving	1100 mtons/day
Joints	360 m/day
Aggregate Shoulders	900 mtons/day
Urban Primary(<18000mtons)	
Paving	640 mtons/day
Joints	100 m/day
Cold Milling	1700 m2/day
Rubblizing	1700 m2/day

Aggregate Shoulders	450 mtons/day
Urban Primary(>18000mtons)	
Paving	1000 mtons/day
Joints	120 m/day
Cold Milling	1700 m2/day
Aggregate Shoulders	500 mtons/day
Urban Interstate(>18000mtons)	
Paving	1200 mtons/day
Joints	220 m/day
Cold Milling	1700 m2/day
Rubblizing	5800 m2/day
Aggregate Shoulders	640 mtons/day
Rural Primary(<18000mtons)	
Paving	640 mtons/day
Joints	120 m/day
Cold Milling	590 mtons/day
Crush & Shape	10000 m2/day
Aggregate Shoulders	640 mtons/day
Rural Primary(>18000mtons)	
Paving	1100 mtons/day
Joints	150 m/day
Cold Milling	800 mtons/day
Crush & Shape	10000 m2/day
Rural Interstate(>18000mtons)	
Paving	1280 mtons/day
Joints	220 m/day

B. WORKSHEET

WORK DAY/COMPLETION DATE DETERMINATION

CS: _____ JN:

DESCRIPTION OF WORK: _____

MAJOR WORK ITEM	PRODUCTION QUANTITY	RATE	ESTIMATED TIME

TOTAL ESTIMATED TIME:

COMPLETION DATE: _____ (Calendar Days or Work Days)

COMMENTS:

_____
_____
_____
_____
_____

C. MDOT CALENDARS

The following are the MDOT 4, 5 and 6 day calendars:

CALENDAR	DESCRIPTION	START	FINISH
1	Std - Apr 16 - Nov 15 - 4 day	APR 16	N0V 15
2	LP - Bit Stab - 4 day	MAY 15	OCT 15
3	UP - Bit Stab - 4 day	JUN 01	OCT 01
4	LP S of M-46 - Bit Pave - 4 day	MAY 05	NOV 15
5	LP N of M-46 - Bit Pave - 4 day	MAY 15	NOV 01
6	UP - Bit Pave - 4 day	JUN 01	OCT 15
7	LP - Bit Seal Coat - 4 day	JUN 01	SEP 15
8	UP - Bit Seal Coat - 4 day	JUN 15	SEP 01
9	Tree Planting - Deciduous - 4 day	MAR 01 OCT 01	MAY 15 NOV 15
10	Tree Planting - Evergreen - 4 day	MAR 01	JUN 01
11	South LP - Restoration - 4 day	MAY 01	OCT 10
12	North LP - Restoration - 4 day	MAY 01	OCT 01
13	UP - Restoration - 4 day	MAY 01	SEP 20
14	Full Year - Winter Work - 4 day	JAN 01	DEC 31
21	Std - Apr 16 - Nov 15 - 5 day	APR 16	NOV 15
22	LP - Bit Stab - 5 day	MAY 15	OCT 15
23	UP - Bit Stab - 5 day	JUN 01	OCT 01
24	LP S of M-46 - Bit Pave - 5 day	MAY 05	NOV 15
25	LP N of M-46 - Bit Pave - 5 day	MAY 15	NOV 01
26	UP - Bit Pave - 5 day	JUN 01	OCT 15
27	LP - Bit Seal Coat - 5 day	JUN 01	SEP 15
28	UP - Bit Seal Coat - 5 day	JUN 15	SEP 01
29	Tree Planting - Deciduous - 5 day	MAR 01 OCT 01	MAY 01 NOV 15
30	Tree Planting - Evergreen - 5 day	MAR 01	JUN 01

31	South LP - Restoration - 5 day	MAY 01	OCT 10
32	North LP - Restoration - 5 day	MAY 01	OCT 01
33	UP - Restoration - 5 day	MAY 01	SEP 20
34	Full Year - Winter Work - 5 day	JAN 01	DEC 31
35	Full Year - Expedited - 6 day	JAN 01	DEC 31

ATTACHMENT B
CS 82131 JN 76093
M-1(Woodard Ave.) From the Adams to I-94

SURVEY SCOPE OF WORK

FULL SURVEY FULL SURVEY FULL SURVEY

Please notify survey consultant manager that you are included this work into scope.

Survey Mapping Limits: As needed for Design

NOTES: The consultant surveyor shall discuss the scope of this survey with the consultant design engineer before initiating any work on this project. A detailed Survey Work Plan with an estimate of hours by specific survey task such as traversing, leveling, mapping, etc., **must** be included in the project proposal.

It is the responsibility of the Professional Surveyor to safeguard all corners of the United States Public Land Survey System, published Geodetic Control and any other Property Controlling corners that may be in danger of being destroyed by the proposed construction project.

GENERAL REQUIREMENTS:

1. Surveys must comply with **all Michigan law** relative to land surveying.

2. Surveys must be done under the **direct supervision** of a Professional Surveyor licensed to practice in the State of Michigan.

3. Work in any of the following categories of survey: Road Design, Bridge, Hydraulic, Right-of-Way, Ground Control (Photogrammetric), and/or Geodetic control, must be completed by a survey firm which is pre-qualified by MDOT.

4. Surveys must meet all requirements of the Michigan Department of Transportation (MDOT) Design Surveys *Standards of Practice* dated April 1, 1998. Please contact the Design Survey office to clarify any specific questions regarding these standards.

5. Consultants must obtain all necessary permits, including an up-to-date permit from the MDOT Utilities Coordination and Permits Section, required to perform this survey on any public and/or private property.

6. The consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job.

7. Consultants are responsible for a comprehensive and conscientious research of all records, including MDOT records, essential for the completion of this project.

8. Measurements, stationing, recorded data, and computations must be in metric units, unless specified otherwise by the Project Manager.

9. Coordinate values shall be based upon the Michigan State Plane coordinate system NAD83. This requirement *may* be waived if GPS is not available. If terrestrial traverse methods are employed, and NGS control is not available within 6 km., a local project coordinate control system may be accepted. All elevations must be based upon the North American Vertical Datum of 1988 (NAVD88) if control is available within 6 km. If not, existing MDOT plan datum is acceptable. Other datums must be approved by the MDOT Design Division, Supervising Land Surveyor. A preliminary submittal of the adjusted Horizontal and Vertical control for the project may be submitted to the Survey Consultant Project Manager for review and acceptance as soon as it is available.

10. The survey notes must be submitted to the Design Survey Unit in 10" (254 mm) by 12" (305 mm) divided portfolios with flap covers. As many portfolios should be used as needed to contain all of the required documents and diskettes

11. Each portfolio must be labeled on the outside as in the following example:

    Survey Notes for:

    Route, Location and Project Limits [I-94 under Beaubien Street]
    Control Section [S06-82024] Job Number [45197D] Date [*of submittal*]
    By [*Name of Firm*]
    Michigan Professional Surveyor [ ] License # [ ]

12. Each submittal is to be divided into five sections. These sections are to be labeled as follows: **Administrative, Alignment, Control**, **Property**, and **Miscellaneous**.

    a. The administrative section will include the following items: a completed copy of the MDOT Form 222(3/99) entitled ASURVEY NOTES: RECEIPT AND TRANSMITTAL@; the limits of the survey and original survey scope as determined by the consultant Surveyor and Design Engineer; a complete synopsis of the survey **that shall include, but not be limited to** horizontal and vertical

control datums used, methodology, a complete discussion of government corners recovered, perpetuated or otherwise used as part of the survey, problems encountered, and a statement of certification from the consultant surveyor supervising the project as to compliance with Michigan Department of Transportation (MDOT) Design Surveys *Standards of Practice* dated April 1, 1998; as well as documentation of all project specific meetings and /or conversations with MDOT Survey personnel.

b. The Alignment section will contain a sketch of the alignment, witnesses and stationing of alignment points set or found; an explanation of how the alignment was determined, whether best fit or legal; and all supporting documentation.

c. The Control section contains the data collected and copies of all research documents used to establish the **horizontal and vertical** reference systems for the project, and includes a thorough written explanation describing how the systems were established. This section should also contain a complete list of control coordinates, control traverse raw data, least squares analysis for both traverse and benchmarks, a separate listing of control point coordinates and witnesses for mapping and construction staking of the project. A complete Benchmark list with datum, station and offset, elevation, and description of each benchmark shall also be included. This information must be submitted in hardcopy and ASCII electronic file format on 88.9 mm (3.5") HD diskettes. Also, a sketch of the control traverse, showing any ties (government corners, property, alignment, etc.) shall be included in this section.

d. The Property section contains all information that is utilized regarding the real property affected by the project, and all necessary property ties. This may include copies of all **recorded** land corner recordation certificates for the government corners used or reestablished, recorded plats, recorded certified surveys, tax maps, tax descriptions, and adjacent/riparian owners.

e. The Miscellaneous section contains any information not included in the previous sections. The surveyor=s project report should specify any items included in this section.

13. A portfolio may contain several types of data but, no section is to contain more than a single type (i.e., Bridge surveys separate from Road surveys and Hydraulic surveys). All sheets in a portfolio must be marked with the control section, job number, portfolio section name and page number. Diskettes must be labeled with the control section, job number, data type and file names.

14. The Consultant representative shall record and submit typewritten minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees.

15. The MDOT Project Manager is the official contact for the Consultant. The Consultant must either address, or send a copy of all correspondence to the MDOT Project Manager. The MDOT Project Manager shall be made aware of all communications regarding this project. Any survey related questions, in regard to this project, should be directed to a Survey Consultant Coordinator.

At the completion of this survey and prior to beginning the design of this project, all field survey notes, all electronic data, and all research records obtained for this project will be considered the property of MDOT and **must be sent to** the MDOT, Design Division, Supervising Land Surveyor, P.O. Box 30050, Lansing, MI 48909. Please use MDOT=s Form 222(3/99) entitled ASURVEY NOTES: RECEIPT AND TRANSMITTAL@ for all transmittals. A copy of this transmittal form must also be sent to the Project Manager. It is highly recommended that the project=s survey portfolios be submitted for review as soon as possible.

FIELD SURVEY

The purpose of the field survey is to obtain all information and data required by the project design engineer, to leave control in the field for future construction staking, and to provide a sufficient history of the area to enable the MDOT Design Survey Unit to perform dependable surveys in the future. The consultant surveyor must discuss the scope of this survey with the project design engineer before initiating any work on this project. Notes of this meeting and a detailed Survey Work Plan with an estimate of hours broken down by specific survey task must be submitted to the Project Manager and Consultant Coordinator within two weeks of this meeting.

The consultant surveyor must contact the County Remonumentation Representative prior to beginning work on the project to inform him of proposed corner perpetuation activities, and to obtain information pertinent to PLSS corners and/or property controlling corners affected by project construction.

FINAL REPORT: DELIVERABLES

The final report for this project shall include the following:

1. In the first pocket of the first portfolio, MDOT=s Form 222(3/99) entitled ASURVEY NOTES: RECEIPT AND TRANSMITTAL,@ and the project=s Professional Surveyor's Report on company letterhead consisting of the following:

    a. A comprehensive report, written and signed by the project=s Professional Surveyor, of the work performed on this project.

b. The source and the methods used to establish the project horizontal coordinates, elevations, and the alignment(s) for this project.

c. A detailed explanation of anything discovered during the survey of this project that may create a problem for the designer or another surveyor.

2. Coordinate and witness lists for the horizontal alignment ties, government corners, traverse control points, and bench marks.

3. A sketch of the alignment with reference points and angle of crossing (if appropriate), horizontal coordinates, curve data, and a station equation to existing stationing in feet.

4. Least squares analysis for horizontal and vertical control.

5. Documentation of horizontal and vertical datum sources.

6. Control sketch with control points, government corners and alignment plotted.

7. All field survey notes, all electronic survey data files, all calculation sketches, and all research records obtained for this project. All electronic survey data files shall be submitted on 88.9 mm (3.5") HD diskettes only, specifically labeled. No paper copy of raw survey data is required.

8. Legible copies of all **recorded** Land Corner Recordation Certificates (with Liber and Page number) filed or used for the performance of this survey, and for any PLSS corners, including Property Controlling Corners, which may be disturbed by construction.

9. It is the responsibility of the consultant to insure that all electronic files submitted to MDOT conform to the required format and all documents are legible.

10. The consultant must organize and label the various sections of the portfolios as required by the MDOT Design Surveys *Standards of Practice* dated April 1, 1998.

11. It is not necessary to submit mapping data in the survey portfolio for a consultant survey/consultant design in the same authorization.

ATTACHMENT C
CS 82131 JN 76093
M-1(Woodard Ave.) From the Adams Road to I-94.

VIDEO PHOTOGRAPHY SCOPE OF WORK

NOTES: The consultant shall discuss the scope of this video photography with the MDOT Project Manager before initiating any work on this project. A detailed Work Plan with estimate of hours must be included in the project proposal. This scope of work shall be part of **P/PMS TASK 3360**.

All work shall commence along M-1, from the Adams to I-94.

GENERAL CONDITIONS AND SPECIFICATIONS FOR VIDEO RECORDING STORM SEWERS:

1. All storm sewers affected by construction along M-3 (as stated above) will be video recorded. Although not limited to the following, the majority of storm sewers range in size from 12-in to 60-in in diameter.

2. Video recordings, shall be performed during minimal storm water flow periods in order to maximize picture quality. The television camera and lighting shall be specifically designed for storm sewer inspection and recording. All video recordings shall be in VHS color.

3. The consultant or contractor shall provide labor, equipment, and material to clean each storm sewer necessary in order to video record a clear, precise picture of the storm sewer conditions. For the disposal of the waste generated from the cleaning refer to Supplemental Specification 403(1). The labor, equipment, and materials necessary for the cleaning shall be include removal, transportation, and disposal of the debris at no extra cost. **The Department shall not be held liable for the loss or damage to any of the contractor's labor, equipment, or materials.**

4. The camera shall be moved through the line, in either direction, at a rate no greater than 30-feet per minute. Stopping may be necessary to properly document the sewer's condition. Winches, TV Cable, rewind, and other devices must not obstruct the camera view or interfere with proper documentation. If during the inspection, the camera will not pass through an entire section, the contractor shall set up his equipment to enter from the opposite opening. If again, the camera fails to pass through, the inspection shall be

considered complete. The camera shall be capable of rotating from side to side to provide views of joint openings

5. All traffic control and traffic control devices to videotape shall be provided by the consultant or its contractor.

6. The contractor shall observe good housekeeping practices at all times during his operations at no extra cost.

7. In the event hazardous materials become an issue; testing and disposal fees will be negotiated separated to this agreement.

FINAL DELIVERABLES

The consultant shall provide, the Department **three (3)**copies of the video recording and written reports. Measurements of the total sewer length and locations of noted sewer defects shall be recorded on the video tape **and** on the written report describing the findings. **The consultant shall include in the written report, recommendations of storm sewer areas that need to be reconstructed. Based on these findings, MDOT will determine at which location storm sewers will be reconstructed.**

Video tapes and reports will be submitted to the MDOT Project Manager two (2) weeks prior to Base Plan submittal. The tapes shall be edited and have audio production. Once submitted, title to the tape recordings shall become the property of the Department.

ATTACHMENT C
CS 82131 - JN 76903C
M-1 (Woodward Ave.) from the Adams Road to I-94

MONTHLY PROGRESS REPORTS

The first two pages of this attachment are the necessary layout of the Monthly progress reports and the last three pages are a completed example.

Control Section 00000
Job Number 00000C
Structure Number S00
Date 00/00/00

MONTHLY PROGRESS REPORT

A. Work accomplished during the previous month.

B. Anticipated work items for the upcoming month.

C. Real or anticipated problems on the project.

D. Update of previously approved detailed project schedule (attached), including explanations for any delays or changes.

E. Items needed from MDOT.

F. Copy of Verbal Contact Records for the period (attached).

Structure Number - Control Section - Job Number
Route, Location Description
Design Schedule as of 00/00/95

LIST TASKS, SUBMITTALS, APPROVALS AND MEETINGS AS OUTLINED IN SCOPE OF DESIGN SERVICES AS NEEDED. THIS LIST IS JUST AN EXAMPLE.

Original Authorized Start Date	Original Authorized Finish Date	(Anticipated) or **Actual** Start Dates	(Anticipated) or **Actual** Finish Dates	Task	Task Description
00/00/00	**00/00/00**	00/00/00	**00/00/00**	??	Initial project meeting.
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3330	Conduct Design Survey..
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3360	Prepare Base Plans
00/00/00	**00/00/00**	00/00/00	**00/00/00**		Submit Base Plans
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3580	Develop Preliminary Plans
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3390	Develop Construction Zone Traffic Control Concepts
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3540	Develop Construction Zone Traffic Control Plan
00/00/00	(00/00/00)	00/00/00	**00/00/00**	3550	Develop Preliminary Traffic Operations Plan.
00/00/00	(00/00/00)	00/00/00	**00/00/00**	3351	Review & Submit of Preliminary Right-Of-Way Plans.
00/00/00	(00/00/00)	00/00/00	**00/00/00**		Submittal of The Plan Review Package.
00/00/00	(00/00/00)	00/00/00	**00/00/00**		Completion of the Plan Review Meeting.
00/00/00	(00/00/00)	00/00/00	**00/00/00**	3840	Develop Final Plans and Specifications
00/00/00	(00/00/00)	00/00/00	**00/00/00**		Submittal of final plans/proposal package to MDOT for final review.
00/00/00	**00/00/00**	00/00/00	**00/00/00**	3870	Omissions/Errors Check (OEC) Meeting
00/00/00	**00/00/00**	00/00/00	**00/00/00**		Consultant's Plan Completion: Final Construction Plan/Proposal package with recommendations incorporated to MDOT (two weeks after OEC Meeting)
00/00/00	**00/00/00**	00/00/00	**00/00/00**		Final Deliverables to MDOT

Control Section 12345
Job Number 11111C
Structure Number S02
Date 07/31/95

MONTHLY PROGRESS REPORT

A. Work accomplished during the previous month.

1. During the last month we completed the Final Right of Way plans and submitted them to Thomas Nelson, Jr. on 05/01/99.

B. Anticipated work items for the upcoming month.

1. Submit the Preliminary Plans and related material on 03/11/99.

2. Attend the meeting regarding the Ameritech lines on the bridge, scheduled for 03/12/99.

C. Real or anticipated problems on the project.

1. We foresee no problems at this time.

D. Update of previously approved detailed project schedule (attached), including explanations for any delays or changes.

1. The design is falling behind schedule because we had problems resolving the geometries of the ramps in relation to the bridge. The Preliminary Plan submittal will be the only task affected by this delay because we will make up the lost time prior to submitting the Final Plans and Specifications.

E. Items needed from MDOT.

1. Prior to final Plan submittal we will need the latest Special provision and Supplemental Specification checklist.

F. Copy of Verbal Contact Records for the period (attached).

1. Discussed bridge and ramp geometries with Tom Myers of M·DOT Traffic and Safety Division on 07-24-95.

SN: S02 - CS: 12345 - JN: 11111C
M-111, from There Village Limits to north of That Road
Design Schedule as of 07/31/95

Original Authorized Start Date	Original Authorized Finish Date	(Anticipated) or **Actual** Start Dates	(Anticipated) or **Actual** Finish Dates	Task	Task Description
01/12/95	01/12/95	**01/12/95**	**01/12/95**??	Initial project meeting.	
01/29/95	01/29/95	**01/30/95**	**01/30/95**3330	Conduct Design Survey.	
02/17/95	04/10/95	**02/17/95**	**04/20/95**3360	Prepare Base Plans.	
02/29/95	02/29/95	**02/29/95**	**02/29/95**3390	Develop the Construction Zone Traffic Control Concepts	
03/12/95	03/13/95	**03/12/95**	(03/30/95)	3540	Develop Construction Zone Traffic Control Plan
03/20/95	03/19/95	**03/25/95**	(03/30/95)	3551	Develop/Review Preliminary Traffic Signal Plan
07/01/95	07/01/95	(07/01/95)	(07/01/95)	3590	The Plan Review Meeting
07/11/95	08/11/95	(07/11/95)	(08/11/95)	3821	Complete/Review Traffic Signal Plan
09/15/95	09/15/95	(09/15/95)	(09/15/95)	3830	Complete Construction Zone Traffic Control Plan.
09/16/95	09/16/95	(09/16/95)	(09/16/95)	3840	Develop Final Plans and Specifications
09/25/95	09/23/95	(09/25/95)	(09/25/95)	3870	Omissions/Errors Check (OEC) Meeting

VERBAL CONTACT RECORD

Control Section 12345
Job Number 11111C
Structure Number S02
Date 07/31/95

Joe Engineer talked to Tom Myers and decided to use a 0.05'/ft super on ramp A leading into the bridge.

ATTACHMENT D
CS 82131 - JN 76903C
M-3 (Woodward Ave.) from Adams Road to I-94

MDOT DESIGN CONSULTANT MANUAL

The MDOT Design Consultant Manual is now listed on the MDOT Bulletin Board System and can be found under the D_CONSLT Library. An index of the latest version of the task descriptions along with any revisions will be included as part of this authorization.

CONSULTANTS are still encouraged to review and provide comment on the draft pages from the MDOT Design Consultant Manual. Please send suggestions to:

Patricia Schafer
Supervising Engineer Consultant Coordination
Operation Contract Support
Michigan Department of Transportation
425 West Ottawa
P.O. Box 30050
Lansing, MI 48909

P/PMS TASK - INDEX - VERSION 2 rev 2

ISSUED 9/29/2000

P/PMS TASK	CURRENT DATE	LATEST REVISION DATE
3120 - CONDUCT STRUCTURE DECK CONDITION SURVEY	07/29/99	
3330 - CONDUCT DESIGN SURVEY	07/29/99	
3340 - CONDUCT STRUCTURE SURVEY	07/29/99	
3350 - CONDUCT HYDRAULICS SURVEY	07/29/99	
3360 - PREPARE BASE PLANS	06/22/99	
3361 - REVIEW AND SUBMIT PRELIMINARY RIGHT OF WAY (PROW) PLANS	07/16/99	
3370 - PREPARE STRUCTURE STUDY	06/16/99	
3380 - REVIEW BASE PLANS	06/29/99	
3390 - DEVELOP THE CONSTRUCTION ZONE TRAFFIC CONTROL CONCEPTS	07/16/99	
3510 - PERFORM ROADWAY GEOTECHNICAL INVESTIGATION	07/29/99	
3520 - CONDUCT HYDROLOGIC, HYDRAULIC AND SCOUR ANALYSES	08/29/00	revised per P. Schriner
3530 - CONDUCT FOUNDATION STRUCTURE INVESTIGATION	07/16/99	
3540 - DEVELOP CONSTRUCTION ZONE TRAFFIC CONTROL PLAN	07/16/99	
3551 - DEVELOP/REVIEW PRELIMINARY TRAFFIC SIGNALS PLAN	07/16/99	added to index 1/5/2000
3552 - DEVELOP PRELIMINARY PERMANENT PAVEMENT MARKING PLAN	07/16/99	
3553 - DEVELOP PRELIMINARY NON - FREEWAY SIGNING PLAN	07/16/99	
3554 - DEVELOP PRELIMINARY FREEWAY SIGNING PLAN	07/16/99	
3570 - PREPARE PRELIMINARY STRUCTURE PLANS	07/16/99	
3580 - DEVELOP PRELIMINARY PLANS	06/30/99	

P/PMS TASK	CURRENT DATE	LATEST REVISION DATE
3581 - FINAL RIGHT-OF-WAY PLANS	07/16/99	
3590 - REVIEW PRELIMINARY PLANS	06/29/99	
3670 - DEVELOP MUNICIPAL UTILITY PLANS	06/30/99	
3675 - DEVELOP ELECTRICAL PLANS	07/01/99	
3710 - DEVELOP REQUIRED MITIGATION (FOR INFORMATION ONLY, THIS IS NOT A CONSULTANT TASK)	07/16/99	
3720 - SUBMIT ENVIRONMENTAL PERMIT APPLICATIONS (FOR INFORMATION ONLY, THIS IS NOT A CONSULTANT TASK)	07/16/99	
3821 - COMPLETE/REVIEW TRAFFIC SIGNAL PLANS	07/16/99	
3822 - COMPLETE PERMANENT PAVEMENT MARKING PLAN	07/16/99	
3823 - COMPLETE NON-FREEWAY SIGNING PLAN	07/16/99	
3824 - COMPLETE FREEWAY SIGNING PLAN	07/16/99	
3830 - COMPLETE CONSTRUCTION ZONE TRAFFIC CONTROL PLAN	06/22/99	
3840 - DEVELOP FINAL PLANS AND SPECIFICATIONS	07/02/99	
3850 - DEVELOP STRUCTURE FINAL PLANS AND SPECIFICATIONS	07/29/99	
3870 - HOLD OMISSIONS/ERRORS CHECK (OEC) MEETING	07/13/99	
4120 - OBTAIN PRELIMINARY TITLE COMMITMENTS	06/29/99	
4130 - PREPARE MARKED FINAL R.O.W. PLANS	06/29/99	
4140 - PREPARE PROPERTY LEGAL INSTRUMENTS	06/29/99	
5010 - CONSTRUCTION PHASE ENGINEERING ASSISTANCE	07/29/99	